

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

1.

Claims 11-13, 15-17, 19-22, 24-29 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Applicant claims a microbially-enhanced fertilizer, i.e. a fertilizer that has been enhanced by microorganisms. Therefore, it is not clear what is meant by a "non-microbially enhanced fertilizer". If the fertilizer is not enhanced by microbes, (non-microbially) then how is it enhanced, if it is still being called "non-microbially enhanced"? When the claim is read in light of the specification, there is no definition of what these terms represent, i.e. there is no definition of what "non-microbially enhanced" fertilizer covers.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 11-13, 15-17, 19-22, 24-29 are rejected under 35 U.S.C. 102(b) as being anticipated by Mehta (US Patent 6228806) in view of SummerSet Fertilizer (downloaded from <http://www.sumrset.com/fertilizer.htm>, dated 8/12/2003) or Newsletter ("Lake Geneva Property Owner's Association", downloaded from [www.lgpoa.com](http://www.lgpoa.com), dated October 2003, see page 3).

Mehta discloses both elements of applicant's claims, i.e. the inorganic fertilizer comprising nitrogen, phosphorous and potassium as well as microorganisms. Specifically, Mehta discloses A. an effective quantity of inorganic fertilizer and B. and a quantity of beneficial microorganisms sufficient to further enhance plant growth when the fertilizer is applied. See abstract. Additionally, Mehta discloses component B as being from  $1 \times 10^5$  to 1000 million microorganisms per gram of fertilizer composition. The microorganisms are selected from bacteria, viruses and fungi. See col. 2, lines 60-61. Mehta teaches the microbes to be selected from a group that also includes *Rhodopseudomonas capsula* and *Bacillus megaterium*. Mehta teaches encapsulating microbes only in water-soluble coatings. See col. 4, lines 15-25. By virtue of these facts, the composition claimed has been met. Applicant's recitation of using a microbially enhanced fertilizer in an amount less 25% than a non-microbially enhanced fertilizer (not part of the claimed combination), is a characteristic or property or benefit that is realized by using Mehta's composition taken with the teachings of the secondary references, and therefore, the same property or characteristic of the composition would have been obtained. At col. 1, lines 56-59, the patent discloses the ratio of N:P:K that are to be used and those of nitrogen and potassium coincide with those claimed herein

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at claims 11, 16 and 20. See also col. 4, lines 5-8. What Mehta does not disclose is a phosphorus-free fertilizer. However, both the secondary references establish that phosphorus free fertilizers were being used at the time the invention was made as a precautionary measure to preserve the environment. Therefore, for this benefit, to omit the phosphorus in the compositions of Mehta would have been prima facie obvious, since many states mandated the use of phosphorus-free fertilizers in 2003.

3. Claims 11-13, 15-17, 19-22, 24-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mehta in view of SummerSet Fertilizer (downloaded from <http://www.sumrset.com/fertilizer.htm>, dated 8/12/2003) or Newsletter ("Lake Geneva property Owner's association", downloaded from [www.lgpoa.com](http://www.lgpoa.com), dated October 2003) and further in view of Xu et al. (Editors, "Nature Farming and Microbial Applications", Publishers: Food Products Press, page 338, 2000) and JP 10248386.

Mehta is as described in the above paragraph. The patent does not disclose that the composition shows that the microbially enhanced fertilizer is used in amounts 25% less than a non-microbially enhanced fertilizer. Although neither the claim nor the specification describes how the non-microbially enhanced fertilizer was enhanced, and while Mehta does disclose that prior to applying the patented composition the soil is analyzed to determine its nutritional requirements and the fertilizer composition to satisfy the nutritional requirements is then formulated, Xu et al. teach that "microbial fertilizers take the place of fertilizers because of their significant effects and that microbial fertilizers can increase crop yields, improve biodiversity and soil fertility,

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*reduce the need for chemical fertilizers, recycle organic wastes and, consequently, abate environmental pollution*". Based on these benefits, it would have been obvious to use the composition described by Mehta and reasonably expect that such use would reduce the need for chemical fertilizers as described by Xu et al. The JP patent also discloses that using microbes results in the amount of fertilizers (agricultural chemicals) "is remarkably reduced". Therefore, when prior art already established that using a microbially enhanced fertilizer would either reduce agricultural chemical or fertilizer use or even completely eliminate such use, the claims' recitation of an amount of at least 25% less of a non-microbially enhanced fertilizer is not unobvious, given that analyzing the soil for its nutrients and formulating a composition for fertilizing it based on such analysis, was also disclosed by Mehta.

### ***Response to Arguments***

Applicant's arguments filed 2/26/2010 have been fully considered but they are not persuasive.

Due to applicant's amendments, the rejection under 35 USC 102 has been withdrawn. However, applicant's position that the limitation "wherein the application to a plant of the microbially enhanced inorganic fertilizer composition in an amount at least 25% less by weight than the application to a plant of a nonmicrobially enhanced inorganic fertilizer composition, results in comparable plant growth or yield in an equivalent time period" has not been disclosed by the Mehta reference is strenuously disagreed with because such a limitation only describes the result of practicing Mehta's

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invention. Applicant is reminded that this is a composition claim. Furthermore, a second patent cannot be issued for advantages that result's from applicant practicing a patent's invention based on the same composition. The rejection already addressed this limitation thus:

Applicant's recitation of using a microbially enhanced fertilizer in an amount less 25% than a non-microbially enhanced fertilizer (not part of the claimed combination), is a characteristic or property that is described or realized, and by using Mehta's composition which is the same composition as claimed herein, the same property or characteristic of the composition would have been inherently obtained.

With regard to the 35 USC 103 rejection, applicant's traversal is based on the new limitations now added, and such arguments are deemed moot in view of the new grounds of rejection.

### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to C. Sayala whose telephone number is (571) 272-1405. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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**/C. SAYALA/**

**Primary Examiner, Art Unit 1794**